



# **Early Childhood Education: National and Virginia perspectives on effective programs and policy**

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# **The Premise: Early Childhood Education**

**Every poor child has access to a highly effective preschool program before they enter Kindergarten.**

- **Ingredients: Effective curriculum; high-quality teacher-child interactions; trained workforce; K readiness assessment.**
- **Sufficient intensity to close gaps.**
- **Scale: Statewide infrastructure, regulation, and support for local implementation of effective models**

# Early Childhood—Access



**Fragmented, idiosyncratic implementation**

# Access: How are we doing?

- **70% of 3- to 4-year-olds in some form of preschool education (HS, pre-k, child care); 40-50% enrollment among low income, etc.**
- **Head Start:** roughly 1 million children
- **State pre-k:** 40+ states, 1.5 million 4-year-olds
- **Public spends \$21-\$27B (\$2K-\$15K/child)**
- **Full/part; universal/targeted**
- **Virginia:** HS and VPI enrolling at national levels; room for added #s in VPI

# Impacts on school readiness

- **Experimental and scaled-up programs**
- **Key issues – costs and educational intensity**
- **“Educational” programs yield greater benefits (~30% long-term gap; 50% gap in one year)**
- **Abcedarian, Chicago, Perry**
  - Long-term academic, social gains; ROI - \$3-\$15
- **State scaled-up pre-K programs**
  - Oklahoma, Georgia, Maryland, Pennsylvania, North Carolina
  - .5-.8 s.d.; larger impacts for poor (half the gap in one year)
  - Positive trends on state standards found consistently
- **Head Start evaluations**
  - Very few benefits in short term; by and large no effects

# Impacts

- Interpret ROI with care
- Virginia
  - Some evidence of benefits (JLARC)
  - No controlled evaluations
  - Quality, curriculum uneven
  - Lacking readiness assessments
  - Strong work on standards

# Program Quality

- **Structural aspects (ratio, teacher credentials)**
- **\$835 million (RTT, QRIS) to improve “quality” mostly based on structural features)**
- **No evidence that structural indicators drive learning (several studies)**
- **Qualities of children’s experiences in classroom setting drive learning**
  - Curriculum
  - Teacher-child interactions

# Defining quality

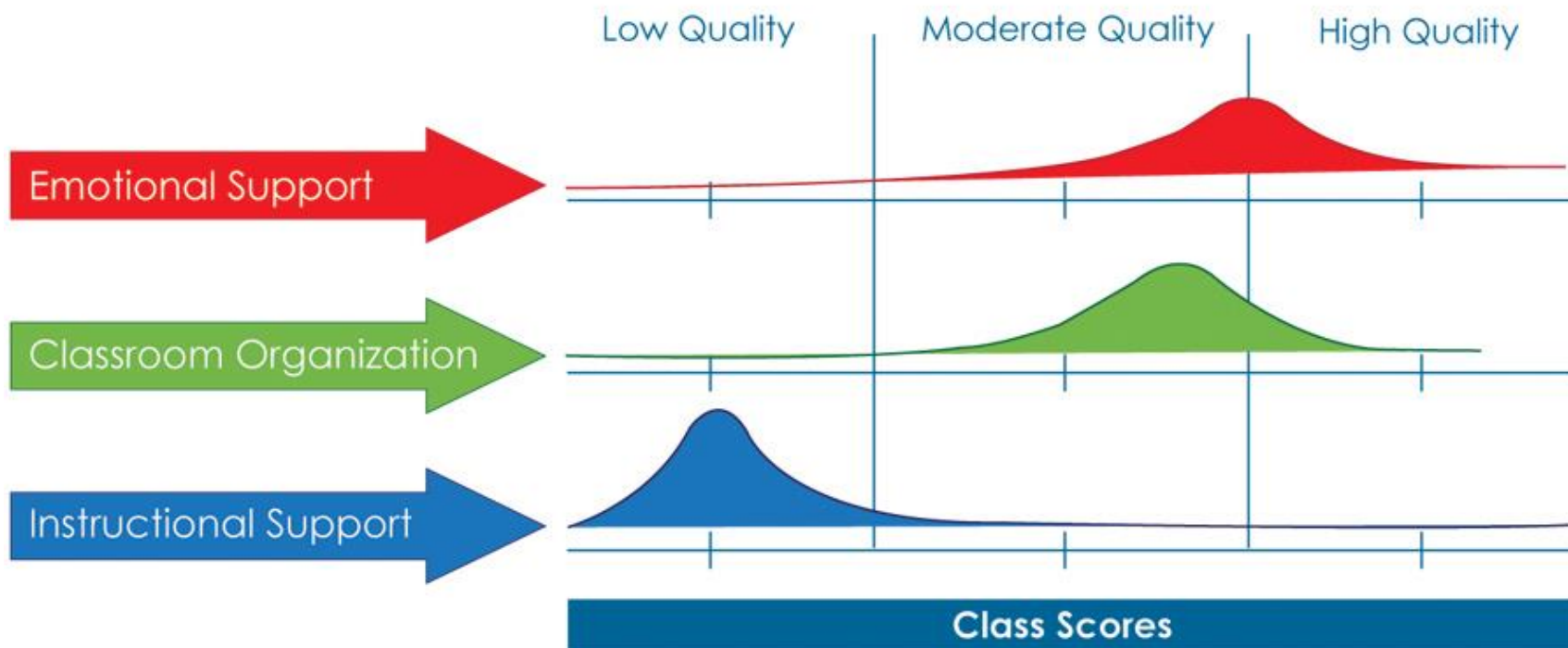
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- Debate has shifted to focus on what's happening in classrooms: Quality that matters for children's learning
- Teacher-child interactions
- Curriculum
- Workforce development



# Quality of teacher-child interactions

## Average Ratings of Interactions in Pre-K - 3rd Classrooms



# Interactions and children's PK development

|                        | Emotional<br>Support | Instructional<br>Support | ECERS-R<br>Total | Structural |
|------------------------|----------------------|--------------------------|------------------|------------|
| Receptive<br>Language  |                      | ✓                        |                  |            |
| Expressive<br>Language |                      | ✓                        | ✓                |            |
| Rhyming                |                      | ✓                        |                  |            |
| Letter Naming          |                      | ✓                        |                  |            |
| Math Skills            |                      | ✓                        |                  |            |
| Social<br>Competence   | ✓                    |                          |                  |            |
| Behavior<br>Problems   | ✓                    |                          |                  |            |

Changes in  
children's  
development  
from beginning  
to end of  
preschool

Mashburn, et al. (in  
press)

# Do effects of interactions in PK persist into K?

- Yes, children in pre-k classrooms offering higher levels of Instructional Support displayed better language skills at the end of the kindergarten year.
- Kindergarten Instructional Support scores made an independent contribution to gains in children's language and math abilities.
- And when QRIS include observations of interactions, they predict readiness. Otherwise not.

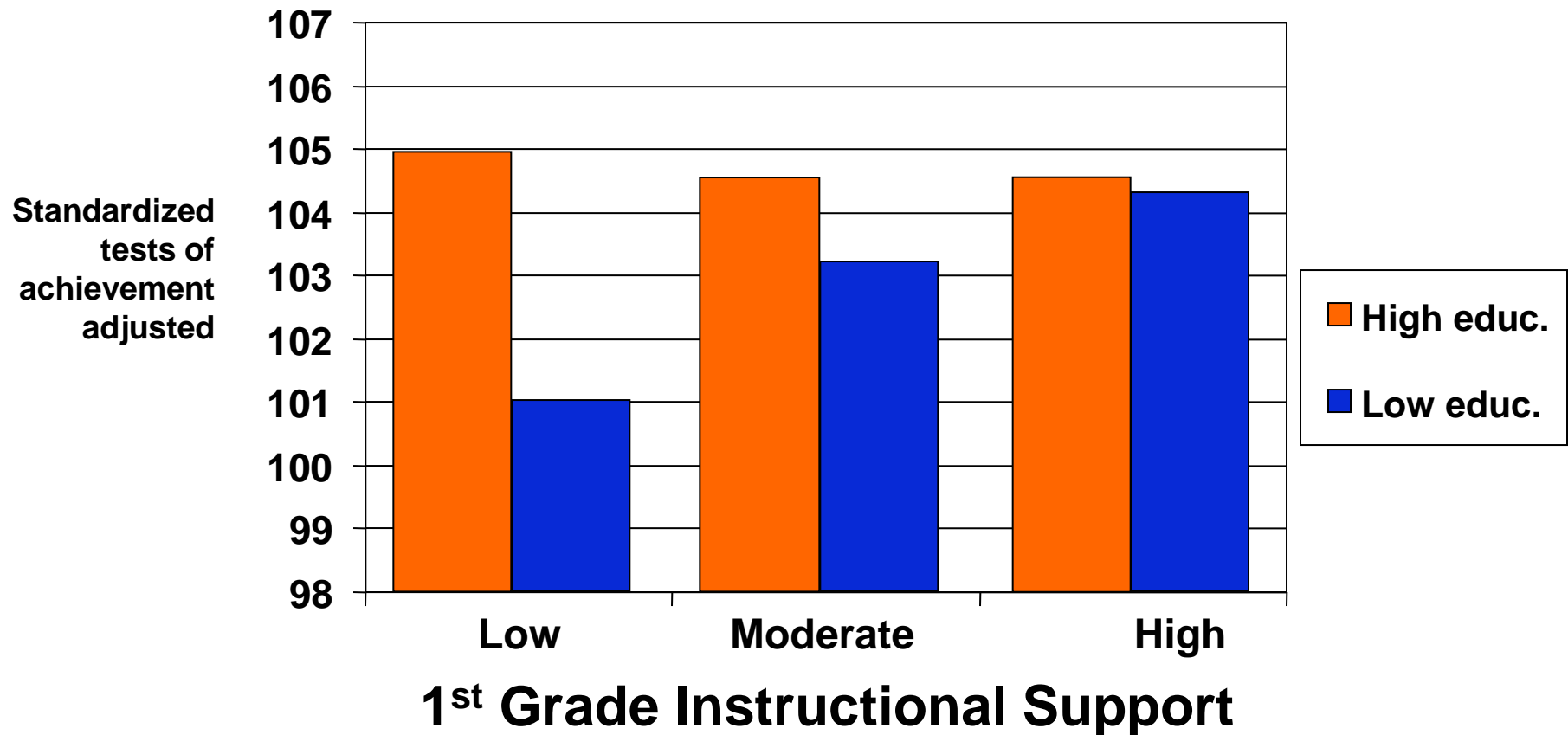


**Interactions are really important for...**

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**...children from low-income families and those who have difficulty adjusting to classroom environments may particularly benefit from exposure to high quality early learning environments as defined by the CLASS.**

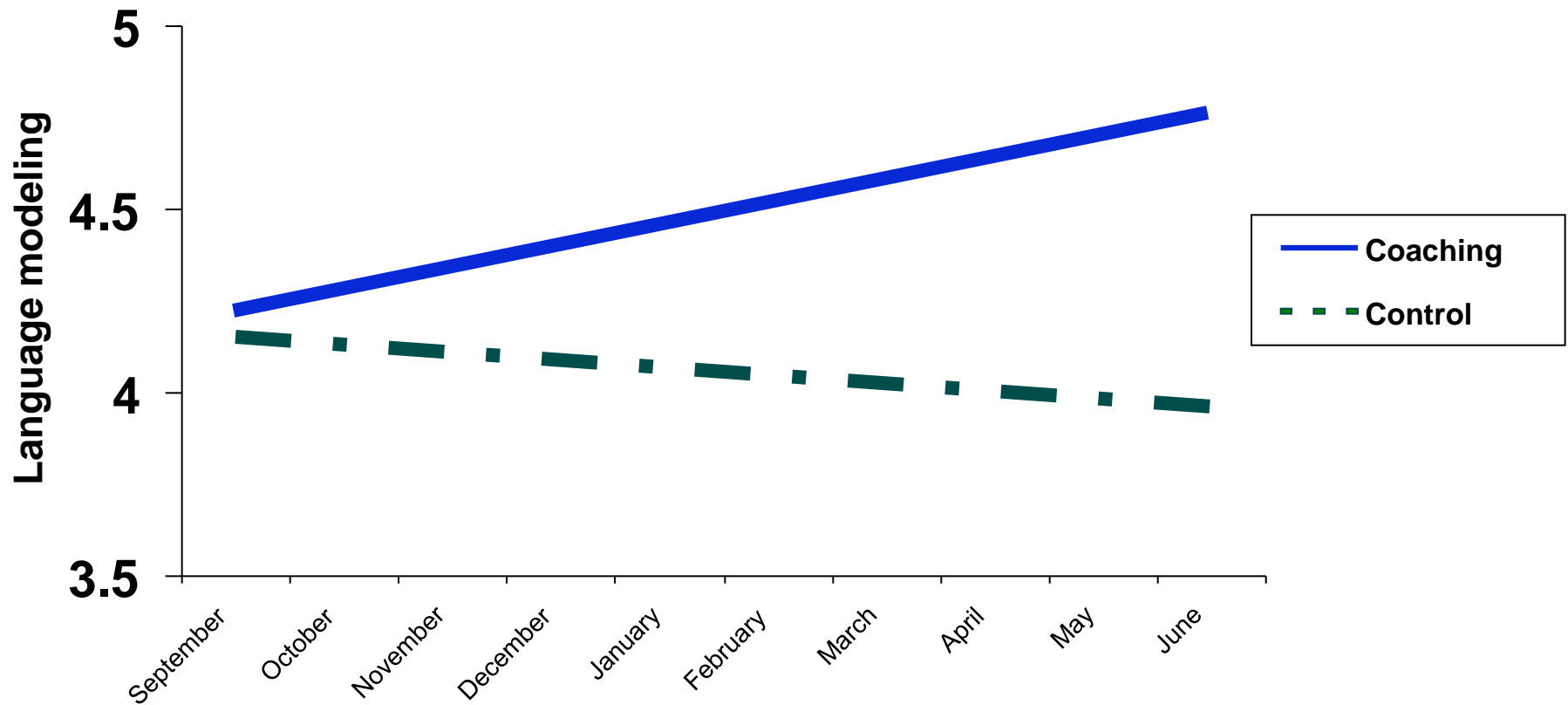
# Gains in grade 1 achievement in instructionally supportive classrooms



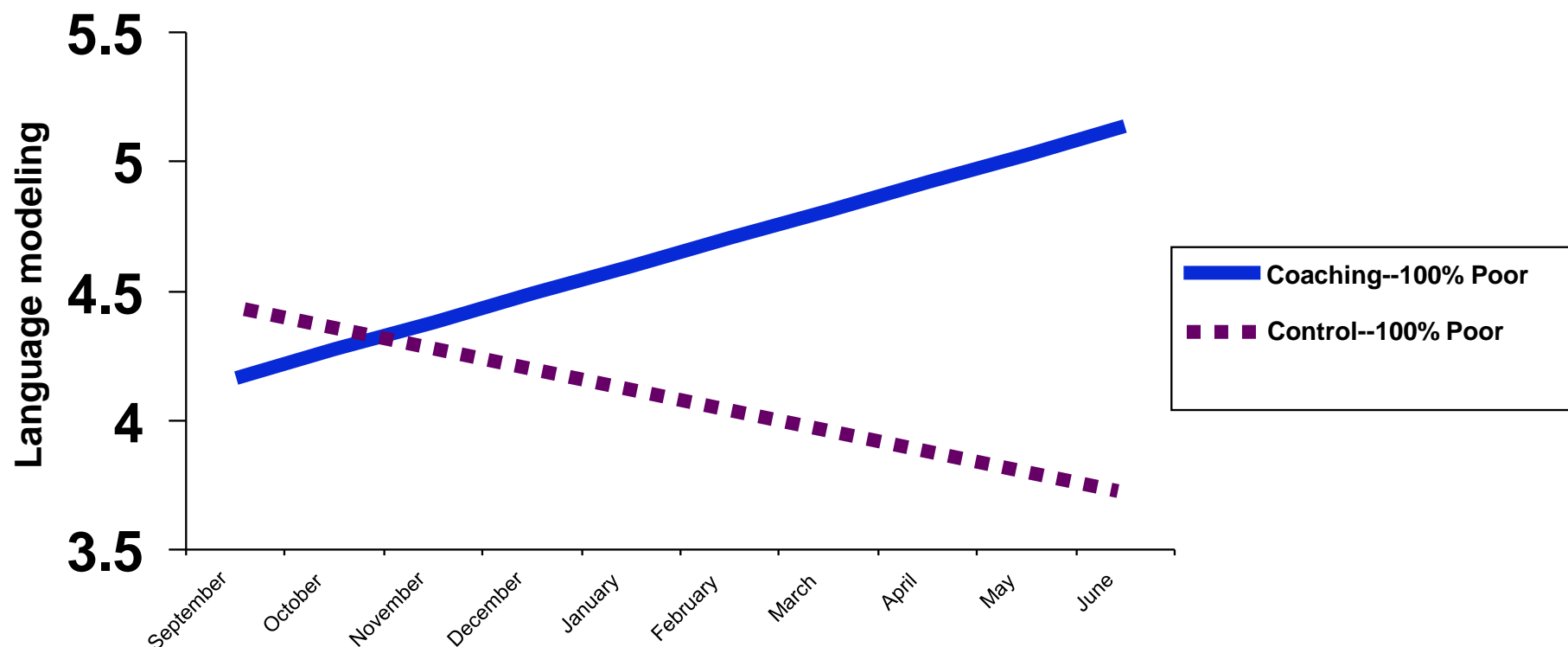
# Improving interactions and their value

- **Link supports to teachers to their interactions with children – Building quality**
- **CLASS – specific definitions of interactions – a target**
- **Video Library – analysis of others' interactions**
- **Coaching – ongoing analysis/feedback on own interactions (MyTeachingPartner, or MTP)**
- **Course – knowledge and analytic skills**
- **All tested in experiments**

# MTP Coaching improves interactions



# Classrooms with high poverty benefit more from MTP coaching for teachers





# Findings: Effects of MTP support in PK

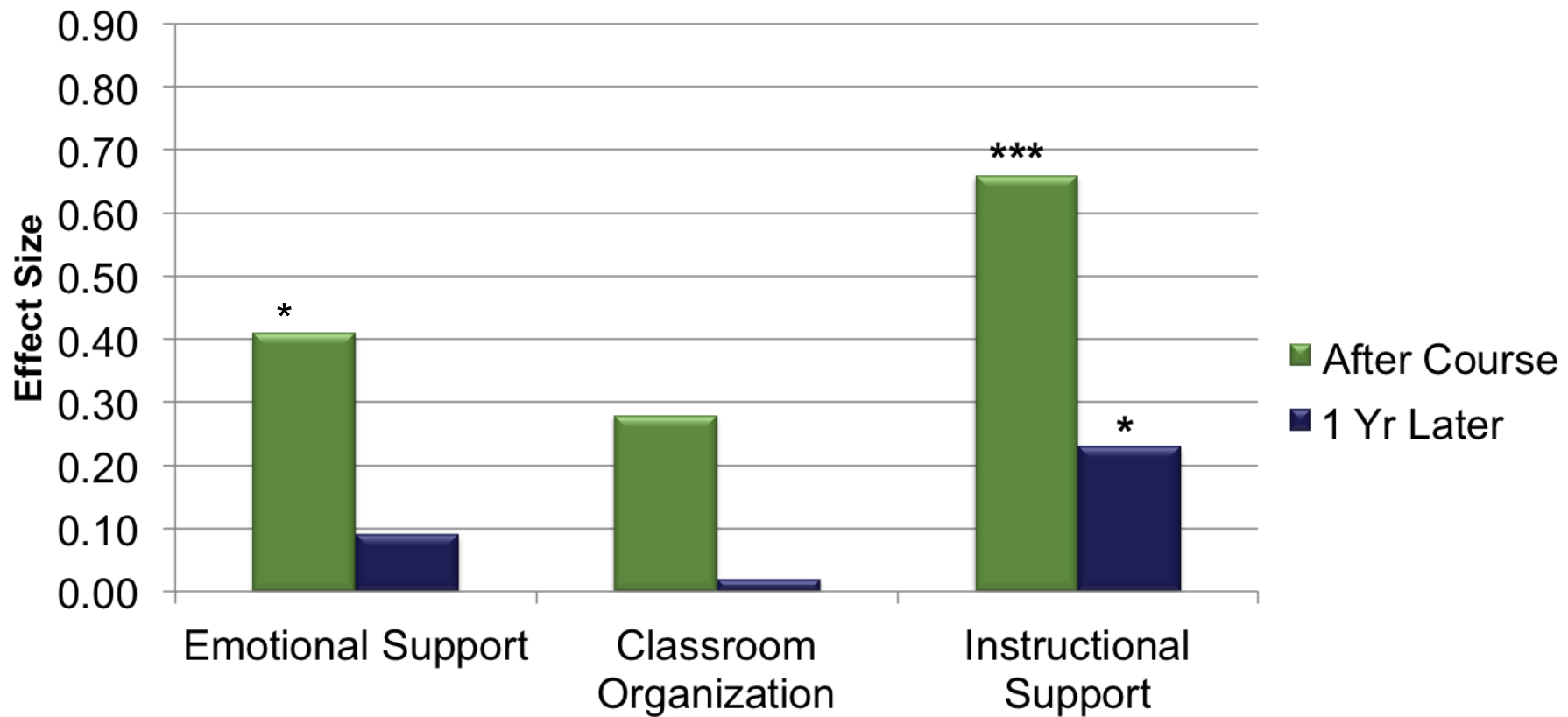
## ■ Teachers with MTP coaches

- ❑ More sensitive in interactions with students
- ❑ Increased students' engagement in instruction
- ❑ Improved language stimulation techniques
- ❑ High-poverty classrooms benefit a great deal
- ❑ Early career teachers benefit even more

## ■ Children with MTP teachers

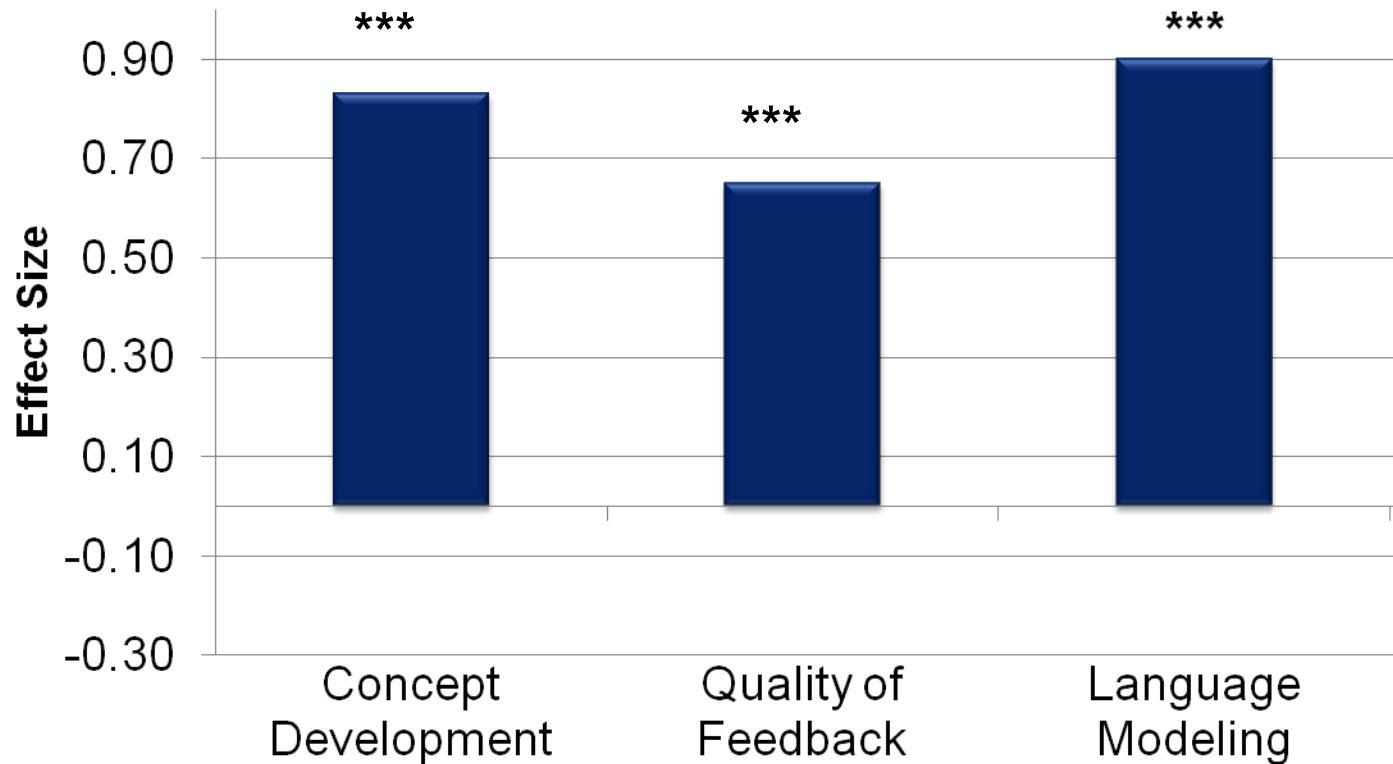
- ❑ Greater gains in tests of early literacy
- ❑ Lower levels of problem behavior
- ❑ Higher levels of expressive language

# Course on interactions improves teaching



\* $p < .05$ ; \*\*  $p < .01$ ; \*\*\* $p < .001$

# MTP coaching improves instruction



\* $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$

# Coaching/course effects on readiness

- Children tested in coaching year and in teachers' classrooms the year after coaching
- Literacy, language development, self-regulation
- Effects on language behaviors in coaching year – greater multi-word conversational turns
- In year after coaching, MTP increased self regulation and working memory; language behavior; and literacy in classrooms with targeted curriculum.

# **Improving impacts: Program design and professional development**

- **Direct training in knowledge of child development – literacy, math, social**
- **Skills training in interactions has benefits**
- **Skills training in curricula and delivery**
- **Use of evidence-based educationally-focused, proven-effective curricula. Least prevalent among preschool programs**
- **Program design really matters – design for impact and implementation**

# Quality improvement and curriculum

- Coaching, coursework on interactions produces gains in teaching and in children's engagement, literacy, vocabulary, self-regulation, and math skills
- Suite of recent curricula (REDI, Literacy Express, Building Blocks, PATHS) all demonstrate impacts
- Issue is redeployment of existing effort and costs toward effective models.
- Early Childhood 2.0 – 2 years, full-time, full year, high quality

# Moving the needle – Access *and* Quality

- Connect observation with PD and feedback to move quality into “active range.” QRIS
- Not all coaching, coursework, or observation is effective; must be focused, ongoing
- Focused teacher professional development and preparation can increase quality and children’s school readiness – Gap-closing experiences
- Teacher preparation and PD – support teachers in their classrooms; focus preparation on actual skills
- We can close gaps for kids and support teachers to feel effective and connected

# A path for Virginia

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- **Stronger curriculum with training for implementation**
- **Continued emphasis on quality of interactions (VECF initiatives)**
- **Readiness and quality assessments**
  - Planning, improvement, accountability
  - Linkage of preschool→K-12
- **Data and decision-making infrastructure**



# Early Childhood—Impact



**Integrated, effective, scalable implementation**